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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/043,744	KUROSE, YOSHITOSHI	
	Examiner	Art Unit	
	Philip S. Scuderi	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,8-11,13-15 and 17-20* is/are pending in the application.

4a) Of the above claim(s) *3 and 14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-6,8-11,13,15 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/23/2007 has been entered.

Response to Arguments

I. 35 U.S.C. § 112, ¶2

Applicant's arguments filed 10/23/2007 in regards to the rejections under §112, ¶2 have been fully considered and are persuasive.

Applicant has amended the claims as suggested by the examiner in the last office action. Accordingly, these rejections have been withdrawn.

II. 35 U.S.C. § 101

Applicant's arguments filed 10/23/2007 in regards to the rejections under §101 have been fully considered and they are persuasive.

Applicant has amended claim 13 to require that the control program be stored on a computer-readable medium. Such a computer-readable medium is statutory subject matter per MPEP § 2106. Accordingly, the rejection under §101 has been withdrawn.

III. 35 U.S.C. § 103

Applicant's arguments filed 10/23/2007 in regards to the rejections under §103 have been fully considered but they are not persuasive.

Applicant argues that Dingsor (U.S. Pub. No. 2002/0129165) does not teach a destination address modification device or a communications device that is a modified destination including an address modification database storing a to-be-modified destination/source address and a modified destination/source address.

This argument is not deemed persuasive for the following reasons.

Dingsor's server (200) corresponds to the claimed "address modification device" or "communications device" that applicant is referring to (see Dingsor at fig. 2). Server 200 is a "modified destination" because packets from the client device are directed to NAT machine 100, which modifies the destination of the packets and forwards them to a server (200) (see fig. 1-4, ¶24, 25). Server 200 stores translation instructions that it receives from NAT machine 100 (see fig. 2, 4, ¶25). The translation instructions include the address of client device 30 and the address of NAT machine 100 (see ¶20). The stored address of client device 30 is used to modify the destination address of response packets so that the response packets are sent directly to client device 30 (see fig. 2, 4, ¶28).

It is therefore reasonable to say that Dingsor teaches a destination address modification device or a communications device (server 200) that is a modified destination (because it receives packets originally addressed to NAT machine 100) including an address modification database (means for storing translation instructions) storing a to-be-modified destination/source address (address of client device 30) and a modified destination/source address (address of NAT machine 100) (see fig. 1-4, ¶20, 24, 25, 28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 5, 15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dingsor (U.S. Pub. No. 2002/0129165).

As to claim 1, Dingsor teaches a first communications device (server 200) for use in a communications system with a second communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), a destination address modification device (NAT machine 100) modifying a destination address of communications data transmitted from the client communications device (client device 30), and the first communications device (server 200) receiving the communications data with the destination address (address of NAT machine 100) modified by the destination address modification device (NAT machine 100), the first communications device (server 200) comprising:

a receiving unit receiving communications data with the destination address (address of NAT machine 100) modified by the destination address modification device (NAT machine 100) (see fig. 4, ¶25);

a source address modification database (means for storing translation instructions) that records a to-be-modified destination address (address of client device 30) and the modified destination address (address of NAT machine 100) in association (see ¶20, 25); and

a transmitting unit transmitting response data directly from the first communications device (server 200) to the client communications device (client device 30) without passing the response data through the destination address modification device (NAT machine 100) (see fig. 2, 4).

Dingsor does not expressly disclose the limitation "a source address modification unit modifying a source address of response data, in response to the communications data, to an original destination address obtained from one of the source address modification data and the destination address modification device."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

As to claims 4 and 5, Dingsor teaches the first communications device according to claim 1, further comprising a plurality of communications processing units [see fig. 2-4].

Dingsor does not expressly disclose assigning a process to a relevant communications processing unit of a plurality of communications processing units based on communications ports added to the communications data.

The claimed communications processing units read on applications that respond to requests sent by a client. It was common in the art for servers to select applications to respond to client requests based on ports specified in the requests so that the servers could properly map requests to the appropriate applications. It would have been obvious to enable server 200 to do so here for the same reasons.

As to claim 15, Dingsor teaches a computer–readable storage medium which stores a communications control program performing control of communications used in a communication system with a first communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), a destination address modification device (NAT machine 100) modifying a destination address of communications data transmitted from the client communications device (client device 30), and a second communications device (server 200) receiving the communications data with the destination address modified by the destination address modification device (NAT machine 100) for enabling a computer to implement functions, the functions comprising:

receiving the communication data with the destination address modified by the destination address modification device (address of NAT machine 100) (see fig. 4, ¶25);

obtaining, by the second communications device (server 200) from one of the destination address modification device (NAT machine 100) and a source address modification database (means for storing translation instructions) in the second communications device (server 200) recording a to-be-modified destination address (address of client device 30) and the modified destination address (address of NAT machine 100) in association, an address of the first communications device (address of NAT machine 100) that is the original destination of the communications data (see fig. 4, ¶20, 25); and

transmitting response data directly to the client communications device (client device 30) from the second communications device (server 200) without passing the response data through the destination address modification device (NAT machine 100) (see fig. 2, 4).

Dingsor does not expressly disclose the limitation "modifying a source address of response data to the communications data to the address of the first communications device that is the original destination."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would

have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

As to claim 17, Dingsor teaches a communications system with a first communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), a destination address modification device (NAT device 100) modifying a destination address of communications data transmitted from the client communications device (client device 30), and a second communications device (server 200) receiving the communications data with the destination address modified by the destination address modification device (NAT machine 100), comprising:

the destination address modification device (NAT machine 100), comprising:

a receiving unit receiving communications data (see fig. 4, ¶25);

a destination address modification unit modifying the destination address (address of NAT machine 100) of the communications data addressed to the first communications device (NAT machine 100) to an address of the second communications device (address of server 200) (see fig. 4, ¶25); and

a modification information generation unit transmitting an address of the first communications device (address of NAT machine 100) that is an original address of the communications data to the second communications device (server 200) (see fig. 4, ¶20, 25);

the second communications device (server 200), comprising:

a source address modification database (means for storing translation instructions) recording a to-be-modified destination address (address of client device 30) and the modified destination address (address of NAT machine 100) in association (see ¶20, 25);

an acquisition unit obtaining an address of the first communications device (address of NAT device 100) that is an original destination of the communications data from one of the destination address modification device (NAT machine 100) and the source address modification database (means for storing translation instructions) (see fig. 4, ¶20, 25); and

a transmitting unit transmitting response data directly to the client communications device (client device 30) without passing the response data through the destination address modification device (NAT machine 100) (see fig. 2, 4).

Dingsor does not expressly disclose the limitation "a source address modification unit modifying a source address of response data in response to the communications data to the address of the first communications device obtained by the acquisition unit."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with

an unrecognized source address. That is, the response packets received by client device 30 would have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

As to claim 18, Dingsor teaches a first communications device (server 200) for use in a communications system with a second communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), a destination address modification device (NAT machine 100) modifying a destination address of communications data transmitted from the client communications device (client device 30), and the first communications device (server 200) receiving the communications data with the destination address modified by the destination address modification device (NAT machine 100), the first communications device (server 200) comprising:

an obtaining unit obtaining a to-be-modified destination address (address of NAT machine 100) and modified source address port number or destination address port number (port of client device 30) that corresponds to a pre-modified source address port number or a pre-modified destination address port number (see fig. 4, ¶20, 25);

a receiving unit receiving communications data with the destination address (address of NAT machine 100), source address port number, or destination address port number (ports of client

device 30) modified by the destination address modification device (NAT machine 100) (see fig. 4, ¶25);

a response data generating unit, obtaining an inside port number (destination port of response packets) corresponding to the modified source address port number or the modified destination address port number (port of client device 30) of the communications data in accordance with a port number database (means for storing translation instructions) in which either the source address port number or the destination address port number (port of client device 30) and the inside port number (destination port of response packets) are associated, and generating response data including data of the processing result produced by making a communications processing unit determined by the obtained inside port number process the communications data (see Dingsor at fig. 4, ¶20, 25); and

wherein the response data is transmitted directly from the first communications device (server 200) to the client communications device (client device 30) without passing the response data through the destination address modification device (NAT machine 100) (see fig. 2, 4).

Dingsor does not expressly disclose the limitation "a source address modification unit modifying the source address of the communication data to an address of the first communications device that is the original destination, and also modifying the source address port number or destination address port number to a pre-modified source address port number or a pre-modified destination address port number obtained by the obtaining unit."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see Dingsor at ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see Dingsor at ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

As to claim 19, Dingsor teaches a destination address modification device (NAT machine 100) for use in a communications system with a first communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), the destination address modification device (NAT machine 100) modifying a destination address of communications data transmitted from the client communications device (client device 30), and a second communications device (server 200) receiving the communications data with the destination address modified by the destination address modification device (NAT machine 100), the destination address modification device (NAT machine 100) comprising:

a source address modification database (means for storing translation instructions) that records a to-be-modified destination (client device 30) address, either a pre-modified source (NAT machine 100) address port number or a pre-modified destination (NAT machine 100) address port number in association (see ¶20, 25);

a receiving unit receiving the communications data from the client communications device (client device 30) (see fig. 4, ¶25);

a destination address modification unit obtaining, with reference to the destination address modification unit, the modified destination address corresponding to the received destination address of the communications data, and either the modified source address port number or the modified destination address port number, and then modifying the destination address of the communications data and either the source address port number or the destination address port number to the obtained modified destination address port number (see fig. 4, ¶20, 25); and

a modification information generation unit transmitting an address of the first communications device (NAT machine 100) with the destination address modified, which is an original address of the communications data, and either the pre-modified source address port number or the pre-modified destination port number, to the second communications device (server 200) (see fig. 4, ¶20, 25), wherein

the response data is transmitted directly to the client communications device (client device 30) from the second communications device (server 200) without passing the response data through the destination address modification device (NAT machine 100) (see fig. 2, 4).

Dingsor does not expressly disclose that the response data has "a source address modified to the address of the first communications device that is the original destination of the communications data."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

As to claim 20, Dingsor teaches a communications method in a communications system with a first communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), a destination address modification device (NAT machine 100) modifying a destination address of communications data transmitted from the client communications device (client device 30), and a second communications device

(server 200) receiving the communications data with the destination address modified by the destination address modification device (NAT machine 100), comprising the steps of:

obtaining the modified destination address corresponding to a destination address of the received communications data, and either the modified source address port number or destination address port number, with reference to a destination address modification database in which a to-be-modified destination address, either a pre-modified source address port number or a pre-modified destination address port number or a modified destination address port number are stored in association (see fig. 4, ¶20, 25);

transmitting the communications data with a destination address modified to the modified destination address by the destination address modification device (NAT machine 100) and either the source address port number or the destination address port number or the modified destination address port number, to the second communications device (server 200) (see fig. 4, ¶20, 25);

receiving, by the second communications device (server 200), the communications data with the destination address, source address port number, or destination address port number modified (see fig. 4, ¶20, 25);

obtaining an inside port number corresponding to either the modified source address port number or the modified destination address port number of the communications data with reference to a port number database in which either the source address port number or the destination address port number and the inside port number are associated, and generating response data including data of a processing result produced by making the communications processing unit determined by the obtained inside port number process the communications data by second communications device (server 200) (see fig. 4, ¶20, 25); and

transmitting the response data directly to the client communications device (client device 30) from the second communications device (server 200) without passing the response data through the destination address modification device (NAT machine 100) (see fig. 2, 4).

Dingsor does not expressly disclose the limitation "modifying the source address of the communications data to the address of the first communications device that is the original destination, and also modifying either the source address port number or the destination address port number to the pre-modified source address port number or the pre-modified destination address port number, respectively."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

Claims 6, 8-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dingsor (U.S. Pub. No. 2002/0129165) in view of Coile (U.S. Pat. No. 6,061,349).

As to claim 6, Dingsor teaches a destination address modification device (NAT machine 100) for use in a communications system with a first communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), the destination address modification device (NAT machine 100) modifying a destination address of communications data transmitted from the client communications device (client device 30), and a second communications device (server 200) receiving the communications data with the destination address modified (address of NAT machine 100) by the destination address modification device (NAT machine 100), the destination address modification device (NAT machine 100) comprising:

a receiving unit receiving the communications data from the client communications device (client device 30) (see Dingsor at fig. 4, ¶25);

a modification information generation unit transmitting an address of the first communications device (NAT machine 100) with the destination address modified, which is an original address (address of NAT machine 100) of the communications data, to the second communications device (server 200) that is the modified address (see Dingsor at ¶20, 25).

1. Dingsor does not expressly disclose the limitation "the response data with a source address with a source address modified to the address of the first communications device that is the original destination of the communications data is transmitted directly to the client communications device

from the second communications device without passing the response data through the destination address modification device."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see Dingsor at ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see Dingsor at ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

2. Dingsor does not expressly disclose the limitations "a destination address modification database that records a to-be-modified destination address and the modified destination address in association" or "a destination address modification unit modifying the destination address of the communications data with reference to the destination address modification database, to the modified destination address."

To meet these limitations the inbound translation procedure performed by Dingsor's NAT machine 100 would need to perform the translation in accordance with a destination address modification database recording the address of one of the servers 200 and the address of NAT machine 100.

This type of translation is what is commonly referred to in the art as a providing a "virtual server." For example, Coile teaches a local director (200) that routes packets to servers (312) in accordance with a database recording the address of servers (312) and addresses of the director (200) (see Coile at abstract, fig. 3). It would have been obvious to one of ordinary skill in the art to use such a translation procedure here because it provides a convenient means for distributing network load among the plurality of servers 200.

As to claim 8, Dingsor teaches the destination address modification device according to claim 6, wherein said modification unit transmits information indicating the destination address before modification as modification information [see fig. 2-4; paragraph 20].

As to claim 9, Dingsor teaches the destination address modification unit according to claim 6, wherein said modification unit adds information indicating the destination address before modification to a data section of the communications data and transmits the data [see fig. 2-4; paragraph 29].

As to claim 10, Dingsor teaches a communications method in a communications system with a first communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), a destination address modification device (NAT machine 100) modifying a destination address of communications data transmitted

from the client communications device (client device 30), and a second communications device (server 200) receiving the communications data with the destination address (address of NAT machine 100) modified by the destination address modification device (NAT machine 100), comprising the steps of:

receiving, by the second communications device (server 200), communications data with the destination address (address of NAT machine 100) modified by the destination address modification device (NAT machine 100) (see Dingsor at fig. 4, ¶25);

obtaining, from one of the destination address modification device (NAT machine 100) and a source address modification database (means for storing translation instructions) in the second communications device (server 200) recording the to-be-modified destination address (address of client device 30) and the modified destination address (address of NAT machine 100) in association, the original destination of the communications data (NAT machine 100) (see Dingsor at fig. 4, ¶20, 25); and

transmitting response data directly from the first communications device (server 200) to the client communications device (client device 30) without passing the response data through the destination address modification device (NAT machine 100) (see Dingsor at fig. 2, 4).

1. Dingsor does not expressly disclose the limitation "modifying a source address of response data, in response to the communications data, to an original destination address that is the original destination."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see Dingsor at ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see Dingsor at ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

2. Dingsor does not expressly disclose the limitation "modifying the destination address of communications data received from the client communications device in accordance with a destination address modification database recording a to-be-modified destination address and the modified destination address in association."

To meet this limitation the inbound translation procedure performed by Dingsor's NAT machine 100 would need to perform the translation in accordance with a destination address modification database recording the address of one of the servers 200 and the address of NAT machine 100.

This type of translation is what is commonly referred to in the art as a providing a "virtual server." For example, Coile teaches a local director (200) that routes packets to servers (312) in

accordance with a database recording the address of servers (312) and addresses of the director (200) (see Coile at abstract, fig. 3). It would have been obvious to one of ordinary skill in the art to use such a translation procedure here because it provides a convenient means for distributing network load among the plurality of servers 200.

As to claim 11, Dingsor teaches the method of claim 10 further comprising the steps of:

requesting the destination address modification device to transmit address modification information [see paragraph 29]; and

receiving the destination address modification information from the destination address modification device and modifying a source address of data in response to communications data with an address modified by the destination address modification device based on the address modification information [see the explanation in regards to claim 10].

As to claim 13, Dingsor teaches a computer-readable storage medium which stores a communications control program performing control of communications in a communications system with a first communications device (NAT machine 100) that is an original destination of data transmitted by a client communications device (client device 30), a destination address modification device (NAT machine 100) modifying a destination address (address of NAT machine 100) of communications data transmitted from the client communications device (client device 30), and a second communications device (server 200) receiving the communications data with the destination address (address of NAT machine 100) modified by the destination address modification device (NAT machine 100) to enable a computer to implement functions, the functions comprising:

receiving, by the second communications device (server 200), the communications data with the destination address (address of NAT machine 100) modified by the destination address modification device (NAT machine 100) (see Dingsor at fig. 4, ¶25);

obtaining, by the second communications device (server 200) from the destination address modification device (NAT machine 100), an address of the first communications device (NAT machine 100) that is an original destination of the communications data (see Dingsor at fig. 4, ¶20, 25); and

transmitting response data directly to the client communications device (client device 30) from the second communications device (server 200) without passing the response data through the destination address modification device (NAT machine 100) (see Dingsor at fig. 2, 4).

1. Dingsor does not expressly disclose the limitation "modifying a source address of response data to the communications data to the address of the first communications device that is the original destination."

To meet this limitation the outbound translation procedure performed by Dingsor's server 200 would need to translate the source address of the response packets shown in figure 2 into the address of NAT machine 100.

Dingsor discloses that translation operations can modify source addresses (see Dingsor at ¶32). Dingsor further discloses that translation instructions provided by NAT machine 100 to server 200 can contain the IP address used by NAT machine 100 (see Dingsor at ¶20), which suggests that the translation instructions can use the address of NAT machine 100.

One of ordinary skill in the art would readily recognize that if server 200 does not translate the source address of the response packets the client device 30 would receive response packets with an unrecognized source address. That is, the response packets received by client device 30 would

have a source address of server 200, rather than the address of NAT machine 100 to which the original request packets are sent. One of ordinary skill in the art would readily recognize that this situation could potentially cause confusion at client device 30.

It would have been obvious to one of ordinary skill in the art to enable the server to translate the source address of response packets to the address of NAT machine 100. The motivation for doing so would have been to avoid confusion at the client device.

2. Dingsor does not expressly disclose the limitation "modifying the destination address of communications data received from the client communications device to the modified destination address in accordance with a destination address modification database recording a to-be-modified destination address and the modified destination address in association."

To meet this limitation the inbound translation procedure performed by Dingsor's NAT machine 100 would need to perform the translation in accordance with a destination address modification database recording the address of one of the servers 200 and the address of NAT machine 100.

This type of translation is what is commonly referred to in the art as a providing a "virtual server." For example, Coile teaches a local director (200) that routes packets to servers (312) in accordance with a database recording the address of servers (312) and addresses of the director (200) (see Coile at abstract, fig. 3). It would have been obvious to one of ordinary skill in the art to use such a translation procedure here because it provides a convenient means for distributing network load among the plurality of servers 200.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip S. Scuderi whose telephone number is (571) 272-5865. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Philip S Scuderi/